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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,321	11/26/2003	David G. Shaw	56770US035	9479

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EXAMINER	
PADGETT, MARIANNE L	

ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/723,321	SHAW ET AL.	
	Examiner	Art Unit	
	Marianne L. Padgett	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/25/2006 & 9/5/2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *1-9* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/5/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 10-19 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yializis et al (4,842,893) or Shaw et al (5,032,461), in view of Komiya (EP 0,475,441 A2), as previously applied in sections 16, 8 & 6 of the 6/3/2005, 12/14/2005 & 5/25/06 actions, and optionally further

considering the article by Dr. Shaw "A New High-Speed Vapor Deposition Process for Applying Acrylate Coatings" (paper presented 4/30/1992), as discussed in section 6 of the action mailed 5/25/2006, and further in view of Affinito (5,260,095).

Applicants state that the references should be read fairly (paragraph bridging pages 7-8 of 8/25/2006 response), this is true for all those involved, examiner & applicants, and it's also true of applicants' reading of the rejection. For instance applicants state "Moreover, Yializis et al. '893 nowhere evidence any 'recognition of the barrier properties of the materials taught by both primary references' as averred in the office action" (second to last paragraph, page 8 of response), which totally distorts what was actually said in reference to the primary references of Yializis et al. (893) or for Shaw et al. (461) on page 6 second full paragraph of the 5/25/2006 rejection that stated "While barrier layers are not explicitly discussed, coatings for packaging materials and interleaved multilayers, such as substrate/acrylate/inorganic material/acrylate with possible repeated sequences are suggestive of barrier coatings, especially in view of Dr. Shaw 4/30/1992 article discussed above [paragraph bridging pages 5-6 & 1st paragraph on page 6, 5/25/2006 action] and of Komiya (EP) who teaches the known usefulness of inorganic compounds, such as silicon oxide as transparent gas barrier material in packaging materials..." (emphasis added), which has the opposite meaning than stated by applicants.

In the response of 8/25/2006 on pages 6-8 in the remarks, applicants' discussion appears to be inferring that there is no suggestion in Yializis et al. (893) of depositing sequentially vapor deposited acrylate monomer layer/(metal or inorganic layer)/vapor deposited acrylic monomer layer. This is not convincing, as it is contrary to teachings found therein, specifically in Field of the Invention it is taught that "the resultant cured films are extremely thin - generally less than 4 microns thick - but function as protective coatings for the underlying substrate or as base for a subsequent coating" (col. 1, lines 18-22), followed by "...Ser. No. 562,894,...' Polyfunctional Acrylate Monomers For Polymers Thereof Useful As Capacitor Dielectrics', all of which are hereby incorporated by reference..." (col. 1, lines 34-40 & clearly

including at least trilayer structures from the incorporated teachings of capacitors). In the background it is taught, "There are increased numbers of applications for articles coated with thin films of organic coatings. For example, an economically produced thin film coating having particular properties can be used in food packaging or as a protective coating for metal or other substrates used in information display, medicine, instrumentation... systems presently available operate at speeds which are too slow to be economically justified or the coating produced is not satisfactory for the particular substrate to be coated or the environment in which the substrate exists" (col. 1, lines 43-54). In the Summary of Yializis et al. (893), it is taught "The coating is quite thin, and has the design properties sought for many applications in that it is substantially continuous (i.e., pinhole and void free) as well as substantially delamination free. In contrast to procedures hereto for utilized in the art,..., the process of the present invention operates optimally at a rate of 100 cm/sec - five orders of magnitude faster" (col. 2, lines 18-27), followed by "The process of the present invention is particularly suitable for coating flexible substrates such as... plastics such as polyester, polyethers, polyolefins, and the like, or virtually any flexible material. After curing, the film-covered substrate can be coated with additional materials, such as metals (e.g., aluminum) or other polymers. The products of the coated operation can be used, for example, in optical filters, coatings for window treatments, or coatings for packaging" (col. 3, lines 25-35, note uses where the results must be transparent in order to be effective).

At the beginning of the Detailed Description in Yializis et al. (893), it is stated "While the invention will be described in connection with preferred embodiments and procedures, it will be understood that we do not intend to limit the invention to those embodiments or procedures. On the contrary, we intend to cover all alternatives, modifications and equivalents as may be included within the spirit and scope of the invention..." (col. 4, lines 15-22, noting the above cited alternatives recited in col. 1 for the vaporized condensed monomer coatings to function as protective coatings for underlying substrates, or as a base for a subsequent coating, where the teaching that all alternatives are covered,

clearly suggests that one alternative does not exclude another alternative, especially in the case of two such complementary alternatives).

In the Detailed Description, Yializis et al. (893) further teach "movable support 31 is a water cooled drum 35... defines a rapidly moving continuous surface passing through a dielectric or polymer layer forming zone and an optional metal forming zone..." (col. 4, lines 34-40+), then teaches "because of the small dimensions involved, the surface 37 should be smooth and true. A sheet or substrate 13 of a flexible material is firmly secured to the drum 35 and, when in place the outer surface of the substrate defines the surface 37. The drum 35 is cooled to a temperature specific to the particular monomer being used and generally in the range of 20°C to 80°C to facilitate condensation of the vapor deposits..." (col. 4, lines 47-55), directly followed by the teaching "the optional metal/inorganic material deposition system 34 includes a conventional electron beam vaporization device 41 or a group of resistive evaporation sources (boats) such as those used for metallizing film..." (col. 4, lines 56-60+). The examiner notes that the use of the cooled drum for the monomer vapor deposition process in light of the preceding recited/cited disclosures in Yializis et al. (893), is suggestive of the use of this procedure whether it is used for depositing a base layer for a subsequent coating, such as the taught metal or inorganic material deposit, or for its use in depositing the taught protective layer, hence is consistent with features added by the 8/25/2006 amendment to describe the protective layer of the present invention. Further note, as the structure described as cited above & illustrated in figure 1, has the substrate firmly secured to the drum, which is rotating at high speeds that one of ordinary skill in the art in light of these teachings would expect each revolution of this high-speed rotating drum to deposit additional alternate layers of cured monomer (acrylate) and inorganic material (when that option is chosen), such that applicants implications that such suggestion does not exist in this reference, is not convincing. Note that figure 2, with its description of the second preferred embodiment on col. 7, lines 40-61, shows the broader alternatives of metal or inorganic material being deposited with the same considerations applicable as discussed above

with respect to the embodiment with figure 1, noting that neither figure with its continuously rotating drum has an inherent stopping or starting point for the deposition process, i.e. one would have been expected to be able to start and/or stop on either of the coatings deposited therewith. Applicant's point in reciting 2 alternatives taught for use instead of the taught inorganic deposition material, such that one only deposits organic coatings, exemplified by single layer of organic coatings or two consecutive organic coatings (col. 7, lines 62-col. 8, lines 2), is unclear, as an option one may employ that differs from the presently claimed invention, as well as from the taught option rejected over, does not negate the teachings that do employ deposition of an inorganic coating material.

While Yializis et al. (893) do not explicitly provide an example that deposits polyacrylate/inorganic material/polyacrylate by their deposition technique, any reasonable interpretation by one of ordinary skill in the art would clearly find, given the above direct quotations from the specification, that either or both uses of the vapor deposited acrylic monomer as a base layer and/or as a protective layer with either of the options of vapor depositing metal or inorganic material are suggested by the teachings therein, especially considering the description of the rotating drum deposition system & the explicit incorporation of copending cases which form dielectric capacitors which have such multilayer structures with alternating conductive and dielectric material, thus applicants' arguments with respect to Yializis et al. (893) are not convincing. Applicants' misquote (third sentence, second to last full paragraph, page 8 of response) of the rejection to attribute the "recognition of barrier properties of the materials taught by both primary references" to Yializis et al. (893) is especially not convincing, since the rejection actually attributed the recognition to the 1992 paper by Dr. Shaw, which effectively serves as a teaching reference for the like materials used in the primary references, as well as providing another example that explicitly recites a 3 layer structure with an initial condensed monomer acrylate layer on a cooled substrate, followed by metallization, then recoating with a protective polymer layer, with teachings that any combination of polymer and/or metal coating steps is possible (again see page 854, 1st col., 3rd

paragraph & 2nd col., Application section). Also, previously noted analogous teachings in the 4/30/1992 paper by Dr. Shaw, concerning the technique having coating uniformity [thickness] of approximately 3%, exemplify coating sequences of acrylate/metal with acrylate protective coating after metallization, which provide a measurement relating to smoothness, thus smoothing effects. Note it is the primary references that provide equivalence of metallization layer and inorganic material layer, with the article by Dr. Shaw acting as a teaching reference, which shows or suggests that the specific materials & techniques taught therein have application as barrier coatings for packaging applications, thus providing a recognition that the same materials, same techniques, also applied to packaging materials as taught in the primary references, would also have been expected to have barrier properties.

With respect to the alternate primary reference, Shaw et al. (5,032,461), it is noted that this reference also teaches appropriately cooled substrates consistent with the amendment to the independent claims, where for example in the summary it teaches "The process for manufacturing the multilayered article or structure of the present invention is carried out in a vacuum chamber containing a movable support such as a rotating drum, the surface of which is maintained at a temperature sufficient to permit condensation of a material deposited thereon and generally a temperature in the range of 7°-about 80°C (20° to 175°F) depending on the monomer (or monomer mixture) utilized. A vapor outlet of a vapor riser is mounted adjacent to an upstream portion of the support at a curing means is mounted adjacent to a downstream portion of the support..." (col. 3, lines 40-50), with further teachings of a cooled substrate support are found in col. 8+ figure 2; col. 11+ figure 2a, and col. 12, lines 50-col. 13, lines 10+ figure 2c the latter 2 of which explicitly includes the inorganic material option. It is further taught that "the polymer layers can have inorganic material layers such as metal interleaved between the polymer layers" (col. 4, lines 7-9), as well as teaching the advantages that "The multilayered structure made pursuant to the process of the invention exhibits relatively low levels of cracks and delaminations which, it is believed, is due to a low intrinsic residual stress in the article. Further the structure has been found to

have a low moisture content of less than about one percent and a high endurance to thermal stress" (col. 4, lines 10-60). Shaw et al. (461) further teach, "the process of the present invention is particularly suitable for coating flexible substrates such as...thin metal, plastics such as polyesters, polyethers, polyolefins, and the like, or virtually any flexible material. The products of the coating operation can be used, for example, in...coatings for window treatments or coatings for packaging" (col. 4, lines 23-31). Given these teachings, the use of Shaw et al. (461)'s cooled substrate technique for condensing monomer vapor for forming all layers of polymeric material, including the top layer, and I which can be considered to read on a protective layer, especially in light of the Dr. Shaw article (1992), which suggests a top monomeric protective layer, as well as suggesting that such teachings are useful for barrier coatings in packaging material, which ties in with the Shaw et al. (461) teaching of packaging materials coated by their process.

With respect to applicant's discussion of Shaw et al. (461) on pages 9-10 of their response, it appears that they are alleging that the teaching in column 14, lines 39-41 concerning creation of "the cure film is water clear throughout the structure to provide a relatively transparent structure" is applicable only to the multilayer structures composed only of monomer films. Applicant's interpretation that this alleged necessity refers to the following example I, is not agreed with, however the examiner will agree that it does not necessarily refer to the preceding structures of figures 14a-d, whose description precedes this disclosure, and includes both all monomer structures (14a) & monomer layers interleaved with inorganic layers (14b-d), but no more necessarily refers to example I, than to example II (interleaved monomer + aluminum layers, also providing good moisture resistance), or example III or example IV. It could more easily or accurately be said to be capable of referring to any of the embodiments as possible to be formed with taught relative clarity, or it could be said probably most accurately to be ambiguous to exactly what configuration it is applicable to, but definitely suggestive of the ability and the desirability of forming transparent structures with the taught processes. Thus further in view of the Dr. Shaw article (1992), which is also inclusive of optical uses, as well as proposed use as barrier films for packaging as discussed

above, both this and uses would have been suggested to one of ordinary skill in the art in reading these references for reasons as discussed above & previously.

As previously stated Yializis et al ('893) or Shaw et al ('461), both differ from the claims by not disclosing that their inorganic material deposited between layers of flash vapor deposited and crosslinked acrylate is a transparent oxygen oxide barrier film or that the acrylate layer is a smoothing layer. The primary patent references deposit the acrylate monomer in the same manner as taught by the present application, hence while the layer is not called a "smoothing" layer, it must inherently have the same effect when deposited on analogous plastic substrates, that may be thermoplastics as claimed, especially in view of the Dr. Shaw 4/30/1992 article, which indicates that the analogous process produces a uniformity of approximately 3% variation in thickness, which would have been expected to be consistent with the claimed reduction of substrate surface roughness.

As previously noted, while barrier layers are not explicitly discussed, coatings for packaging materials and interleaved multilayers, such as substrate/acrylate/inorganic material/acrylate with possible repeated sequences are suggestive of barriers coatings, in view of the Dr. Shaw 4/30/1992 article discussed above that provides teachings to support this, and in view of Komiya (EP) who teaches the known usefulness of inorganic compounds, such as Si oxide as transparent gas barrier material in packaging materials (page 2, lines 10-25), and further teaches that such gas barriers may be improved by a polymeric overcoat (page. 3, Summary), explicitly stating that the combination has "superior gas barrier properties". The examiner noted that one of ordinary skill would recognize that for the protective function of preventing the known prior art problem of cracking of thin-film inorganic or metal compound barrier layers (page 2), the surface resin layer would have been expected to improve the overall barrier properties of the composite structure, since cracks would interfere with the performance of barrier functions, thus providing further suggestion that inorganic barrier layers should have a top protective coating to protect against this known problem. Komiya (EP) provides specific examples of plastic substrates (polyester,

polypropylene, PET, etc., page 3, lines 36-41), and of oxides or nitrides, etc., such as Si_xO_y, Al_2O_3, Si_3N_4, where those that are transparent are particularly preferred, and deposition processes include sputtering, CVD, plasma deposition, etc. Therefore, it would have been obvious to one of ordinary skill in the art, given Komiya's teachings of the usefulness of those inorganic materials as barrier materials and their deposition techniques in preparing packaging materials, to employ them in the process of Yializis et al ('893) or Shaw et al ('461), for their taught use in coating packaging substrates and generic inorganic interleaved layer, for their known gas barrier properties, and expected effectiveness, especially given overlapping deposition techniques for specific desirable species of the primary references generic teachings. Komiya (EP) also provides cumulative reasons for specifically using a top protective monomer coating when coating packaging materials, as it shows the problems known when not using a protective coating, but the primary references suggest either top protective acrylate coatings or final acrylate monomer coatings in a series of interleaved layers.

Applicant said amended the independent claim 10 to now include the specific procedural steps of chilling the thermoplastics substrate, and condensed in cross-linking the acrylic monomer composition on to the oxygen barrier material, which technique differs from the technique of Komiya (EP) who deposits their top polymeric protective coating via an extrusion technique, however as seen above is the same as the protective coating technique taught by the primary references. It would have been further obvious to one of ordinary skill in the art to use the protective coating technique of the primary references with the specific inorganic barrier material of Komiya (EP), for previously discussed reasons repeated above, and because Affinito (095) which is teaching a substantially similar technique as those of the primary references, vapor depositing polymeric layers, then vapor depositing inorganic metal layers, then vapor depositing a polymeric protective layer, with teachings of smooth finishes, and that this technique of protective layer deposition is superior to prior art solid layer or liquid spreading deposition techniques equivalent to those discussed in Komiya (EP), due to advantages in providing faster curing, fewer

impurities, reduced wetting angle, smoother finishes, the ability for fabrication to be carried out in a single vacuum chamber etc., hence it would've been further obvious to one of ordinary skill in the art to employ the protective layer technique of the primary references, which would have been expected to provide equivalent benefits, thus a superior protective layer to the particular protective layer discussed in Komiya (EP), which is important for showing the need for a protective layer when employing silicon oxide barrier layer coatings on polymeric materials as discussed above & previously.

Applicant is argued that Komiya's teaching that there will uses up the unprotected thin barrier layer has cracking problems (due to expansions & contractions) would preclude use in the primary references process is not convincing, because heat is not producing the same effect as cooling used therein, especially in the controlled coating technique which would hold the substrate at the temperature for condensation on the single drum or the like, and further considering that the protective layer is protecting against the problem.

3. Other art equivalent to Komiya remains Misiano et al (5,571,574) for claims 10-17 and 19, or JP 58-128,852 for claims 10-16 and 19.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yializis et al ('893) or Shaw et al ('461), in view of Komiya (EP)), further considering the article by Dr. Shaw "A New High-Speed Vapor Deposition Process for Applying Acrylate Coatings" (paper presented 4/30/1992) & Affinito (095), as applied to claims 10-19 & 21 above, and further in view Kubacki (4,096,315) or Kadowaki (JP 4-353819).

Claim 20 has been amended to clarify the use of the plasma is applied to a cured smoothing layer, thus removing the option that the plasma might cure the applied polymer layer such that the main difference between this amended claim & the above combination of section 2, is the use of a plasma to treat the cured acrylate smoothing layer deposited on the substrate in vacuum before deposition of transparent oxygen barrier layer thereon. As previously noted, both primary references teach the

necessity of curing their vapor deposited monomer before subsequent inorganic material deposition, using electron beam or ultraviolet radiation (Yializis et al.-col. 1, lines 12-22+; Shaw et al.-col. 3, lines 61 -65 & col. 7, lines 58-61). Therefore the previous applied teachings of Kubacki or Kadowaki for improving it adhesion of subsequent layers remained the applicable rejection to this claim. To reiterate, plasma pretreatment before subsequent coatings for improved adhesion effects is also old and well known in the art as shown by Kubacki (abstract; col. 2, lines 10-52, especially lines 15-1725-35 & 46-50) who teaches a process of coating in acrylate containing substrate (PPMA) where the first step is a preliminary plasma treatment to form hydroxyl groups via plasma to effect good adherence of the sequentially applied coating that contains SiO_2, or Kadowaki whose abstract teaches a molded polymerized substrate containing methacrylate components, which is subject to plasma treatment followed by a coating containing silanol groups, silica and metal complex components, therefore it would have been obvious to one of ordinary skill in the art to perform plasma treatments to acrylate surfaces of the primary references in order to enhance adhesion of successive oxide coatings, as good adhesion is desirable in any product which is not meant to deteriorate, especially where the barrier properties are desired to be effective and permanent.

5. Claims 10-11, 13-16 & 21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 11/272,929. Although the conflicting claims are not identical, they are not patentably distinct from each other because while claiming specific substrate in barrier characteristics this copending application is encompassed by the broader the broader limitations for substrates and properties of layers of the present application, thus constitutes obvious variations on the present claims. Note that this copending application to Padiyath et al., while having no overlapping inventors, this patent application has a later effective filing date and is to the same assignee.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claims 12 & 17-19 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 11/272,929 in view of Shaw et al. or Yializis et al (893) for reasons as applied in section 6, for providing technique details of the analogous acrylate & inorganic material depositions as discussed above.

This is a provisional obviousness-type double patenting rejection.

7. Claim 20 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 11/272,929 in view of Kubacki (4,096,315) or Kadowaki (JP 4-353819) for reasons as applied in section 8.

This is a provisional obviousness-type double patenting rejection.

8. Applicant's arguments filed 8/25/2006 and discussed above have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 10-21 have been considered but are moot in view of the new ground(s) of rejection.

Other art of interest include the Japanese reference to Canon KK (62-205552 A), which concerns multilayer coating with silicon oxide coating & and acrylate copolymer, but deposits in differing orders from those claimed; Bright (2002/0022156 A1) & Padiyath et al. (2004/0195967 A1) with processes for forming structures of interest, but which are not prior art; and Hudgens et al. (4737379), Maruhashi et al. (4393106) & Wreede et al. (5013584), who all have relevant teachings concerning known barrier properties of oxide materials such as silicon oxide.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing

date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP/dictation software

10/13/2006

MARIANNE PADGETT
PRIMARY EXAMINER